UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
TETON NATIONAL FOREST

F. S. D-4
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OCT 29 1932
FOREST MANAGEMENT
Ans.

ADDRESS REPLY TO
FOREST SUPERVISOR
AND REFER TO

JACKSON, WYOMING

S
Insect Control,
Teton.
Mosquito Creek Project.

October 27, 1932.

REGIONAL FORESTER.

The following report on the control work is submitted herewith:

The Mosquito Creek Insect Control Project comprises an area of 4500 acres, and includes the infested areas on Mosquito Creek, Taylor and Cottonwood Creeks. The infested area is located approximately 5 miles south of the Teton Pass Road, and extents from the Forest Boundary on the East to the Inter-forest Boundary on the West. With the exeeption of 75 acres of timbered private lands on the East, the entire area is Forest Service land. Timber stands vary from pure lodgepole stands to spruce and alpine fir stands, mixed with lodgepole. Extensive lodgepole stands of all age classes are in close proximity on all sides.

Insect infested lodgepole, single and in small groups, were observed within the area since 1925. In 1928 it became evident that the Dendroctonus increased considerably, and that control measures were necessary in order to check the infestation on the area and also protect the adjacent lodgepole stands. The beetle responsible for the infestation is Dendroctonus monticolae, or Mountain Pine beetle. Several species of Ips are also present.

Control operations were started on the area in the spring of 1929. A total of 651 trees were treated at a cost of $1.11 per tree. The method of control used was spraying and burning standing trees. While we knew that the area was not nearly cleaned up, the work had to be discontinued on account of danger from Forest Fires.

R O Copy

Copy sent Forester, Mr. Craighead & Evenden

Control work was continued in the spring of 1930. A 100% cruise was made and 4,515 trees treated at a cost of 68¢ per tree. The method used was the same as on the previous year, but it was evident that in order to get best results, this method was not quite satisfactory. The trees were infested too high to be reached with the pumps, and a large number could not be crowned out.

In 1931 the method of control was somewhat changed. Whenever there was any doubt that the tree had not been burned high enough, or could not be crowned out, the tree was cut. All trees were burned standing, and if cutting was necessary, they were cut down and the infested part left was burned on the ground. The total number of trees treated was 4,762, and the cost per tree was $1.41. Approximately 40% of the trees treated had to be cut. The greatest infested gight observed was 97 feet. From careful observations it was evident that the infestation still was on the increase with a ratio of at least 5 to 1. However, as all doubtful trees had been felled, a more complete and thorough control job was done then in previous years.

The cruise made in the fall of 1931 showed about 1200 newly infested trees. This indicated that the infestation, while under control, was not yet subdued, and that control measures in 1932 were necessary.

On May 17, 1932, control operations were resumed. The same method of disposal used last year was again used this year. While as a whole, the trees were not nearly infested as high, 16% had to be cut. The crew organization was changed from separate spotting and burning crews to one disposal crew, the spotters burning the trees when found. Only one crew was used. All men employed had previous experience in Insect control work. The camp was located at the end of the road on Mosquito Creek and it was not necessary to change its location. Every man was mounted, and all necessary equipment for disposal was carried along on packhorses in charge of a packer. The work commenced May 17, and was carried on until June 30. Weather conditions were excellent during the entire period. While, as in previous years, great care had to be taken on account of Forest Fires, several good rains reduced the fire hazard considerably.

The camp personnel consisted of 2 Forest officers, 1 cook, 5 laborers and one packer. The wages paid were Cook, $3.00 per day and board; laborers $2.30 per day and board; packer $89.00 per month and board. Horses were paid for at the rate of 50¢ per day.

The work was done as outlined in instructions for this method. During June one man was added to the crew on account of fire. A total of 252 man-days were used in spotting and treating, which gives 5.8 trees treated per man day. Whenever any doubt existed as to wether a tree was treated sufficiently high, the tree was cut. No compass lines were followed, and the drainages were cleaned the easiest way, considering slopes and timber.

The average infested hight was about 20 feet, which is considerable lower than in previous years. Average diameter 12 inches. The larvae observed were in all stages, from mature insects to very small larvae. While making the cruise last year I particularly marked 4 trees, because the larvae found then was very large. On 2 of these trees the young beetles had emerged before June 10.

No control work was done on about 500 acres of the project. 300 acres had been burned over the previous year, and on 200 acres on Cottonwood Cr. I could not find any new attacks and did not go over the area with the crew. Along the Teton Pass Road I found a small area seriously infested. This area was also cleaned out and the figures included in the Mosquito Creek Project. No new infestations were found on Fall Creek or Black Canyon.

While the entire area was not covered with the same intensity as in the two previous years, only one crew going over it this year, the fact that all men on the job had previous experience, knew the work and the area covered, were mounted and could cover more territory, assisted greatly in doing effective work.

Area covered:	Mosquito Cr. project...	4000 acres
	Teton Pass	500 "
	Total	4500 acres.

Cost of project.	Direct.....	$1,542.76
	Contributed	437.00
	Total	$1,979.76.

No of trees treated	Mosquito Cr.,	1285
	Teton Pass ...	176
	Total	1461.

No of meals served 979
Cost per meal ..... 40¢

No cost of Supervision was charged as I worked with the crew whenever I was on the project.

Summary of work done.

Year	No of trees treated	Cost	Area treated
1929	651	$ 721.98	500
1930	4515	3062.14	4000
1931	4762	6717.90	4500
1932	1461	1979.76	4500
Totals	11,389	$12,481.78	4500

Conclusion.

The cruise made this fall showed that the infestation has been reduced to an endemic stage. Only 23 newly infested trees were found and only 2 of them were infested to any height. This would indicate about 230 trees on the entire area. Nevertheless, control measures are recommended for the coming year for the following reasons: Unless we absolutely know that the cycle of the infestation is decreasing and the epidemic is over with, it seems to be poor business to allow a few beetles to multiply so we have another big job on our hands. With a few hundred dollars invested as insurance we dont have to take chances of loosing everything we gained. One more years cleanup will give us safety, also furnish definite proof of the stage of the infestation.

F. Buchenroth.

F. Buchenroth,
Principal Forest Ranger

COSTS INSECT CONTROL PROJECT - TETON NATIONAL FOREST

Inclusive dates work carried on 5-17 to 6-30-32 F Buchanan
Actg. Forest Supervisor

Date this report made. October 24, 1932

	Contributed time and expense	Project funds	Total Cost
Salaries and wages Expenses Forest officers	437.	737.92	1174.92
Subsistence		256.11	256.11
Equipment - purchase, repair, freight etc.		22.65	22.65
Oil		121.28	121.28
Hauling, including Government trucks		118.80	118.80
Horse Hire		89.00	89.00
Horse feed		197.00	197.00
Miscellaneous			
Total cost of Project	437.	$1542.76	$1979.76

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SUMMARY OF INSECT CONTROL PROJECT

Dates project carried on - May 17 - June 30, 1932

Date this report made - October 24, 1932

Teton National Forest

F. Buchanan
Actg. Forest Supervisor

No. 6666	Unit	Number of trees treated: Standing No.	Standing %	Felled No.	Felled %	Tot. No. treated	Area covered (acres)	No. trees TREATED per acre	Cost per tree: Direct	Cost per tree: Contributed	Cost per tree: Total	Cost per acre: Direct	Cost per acre: Contributed	Cost per acre: Total	Oil Used: Total gals.	Oil Used: Gal. per tree
1	Mosquito Cr.	1223	84	238	16	1461	4500	.325	1.05	.30	1.35	.342	.093	.44	1565	1.07